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## CLAIMS

What is claimed is:

A method for managing resources within a distributed
 data processing system, the method comprising:

receiving a request for an action at a target resource within the distributed data processing system, wherein completion of the action depends upon operations of a set of resources along a logical route through the distributed data processing system;

in response to a determination that completion of the action requires that the set of resources operate at high levels of performance, securing operating conditions within the distributed data processing system for high levels of performance by the set of resources and the target resource; and

in response to securing high level performance conditions, granting the request for the action.

- 20 2. The method of claim 1 further comprising:
  rejecting a subsequent request for an action that
  requires operations on one of the resources in the set of
  resources.
- 25 3. The method of claim 1 further comprising: reserving exclusive access to the set of resources and the target resource.

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- 4. The method of claim 3 further comprising:
  generating a restricted session identifier;
  associating the restricted session identifier with
  the granted action;
- transmitting the restricted session identifier to gateways responsible for the set of resources, wherein gateways along the route permit exclusive access to the set of resources in accordance with the restricted session identifier associated with an action.
  - 5. The method of claim 1 further comprising:

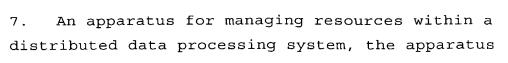
    deriving a set of logical routes from a network

    topology mapping, wherein each logical route is a series

    of endpoints that comprise an endpoint-to-endpoint route

    for completing the requested action.
  - 6. The method of claim 5 further comprising:
    selecting the logical route, wherein the logical
    route does not include resources for which exclusive
    access has previously been granted.

comprising:



receiving means for receiving a request for an

action at a target resource within the distributed data
processing system, wherein completion of the action
depends upon operations of a set of resources along a
logical route through the distributed data processing
system;

10 securing means for securing, in response to a determination that completion of the action requires that the set of resources operate at high levels of performance, operating conditions within the distributed data processing system for high levels of performance by the set of resources and the target resource; and

granting means for granting, in response to securing high level performance conditions, the request for the action.

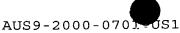
- 20 8. The apparatus of claim 7 further comprising:
  rejecting means for rejecting a subsequent request
  for an action that requires operations on one of the
  resources in the set of resources.
- 25 9. The apparatus of claim 7 further comprising:
  reserving means for reserving exclusive access to
  the set of resources and the target resource.

10. The apparatus of claim 9 further comprising: generating means for generating a restricted session identifier;

associating means for associating the restricted session identifier with the granted action;

transmitting means for transmitting the restricted session identifier to gateways responsible for the set of resources, wherein gateways along the route permit exclusive access to the set of resources in accordance with the restricted session identifier associated with an action.

- 11. The apparatus of claim 7 further comprising:
   deriving means for deriving a set of logical routes
  15 from a network topology mapping, wherein each logical route is a series of endpoints that comprise an endpoint-to-endpoint route for completing the requested action.
- 20 12. The apparatus of claim 11 further comprising:
  selecting means for selecting the logical route,
  wherein the logical route does not include resources for
  which exclusive access has previously been granted.



13. A computer program product in a computer readable medium for use in a data processing system for managing resources within a distributed data processing system, the computer program product comprising:

instructions for receiving a request for an action 5 at a target resource within the distributed data processing system, wherein completion of the action depends upon operations of a set of resources along a logical route through the distributed data processing 10 system;

instructions for securing, in response to a determination that completion of the action requires that the set of resources operate at high levels of performance, operating conditions within the distributed data processing system for high levels of performance by the set of resources and the target resource; and

instructions for granting, in response to securing high level performance conditions, the request for the action.

The computer program product of claim 13 further comprising:

instructions for rejecting a subsequent request for an action that requires operations on one of the resources in the set of resources.

The computer program product of claim 13 further comprising:

instructions for reserving exclusive access to the set of resources and the target resource. 30

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16. The computer program product of claim 15 further comprising:

instructions for generating a restricted session identifier;

instructions for associating the restricted session identifier with the granted action;

instructions for transmitting the restricted session identifier to gateways responsible for the set of resources, wherein gateways along the route permit exclusive access to the set of resources in accordance with the restricted session identifier associated with an action.

17. The computer program product of claim 13 further comprising:

instructions for deriving a set of logical routes from a network topology mapping, wherein each logical route is a series of endpoints that comprise an endpoint-to-endpoint route for completing the requested action.

18. The computer program product of claim 17 further comprising:

instructions for selecting the logical route,

wherein the logical route does not include resources for which exclusive access has previously been granted.